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10/009,126	11/07/2001	Bertrand Des Ciers	9997.37USWO	5551

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EXAMINER

NGUYEN, HUNG T

ART UNIT PAPER NUMBER

2636

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,126

Applicant(s)

Des Clers Bertrand

Examiner

HUNG NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 7, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3 & 7 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding Claim 1 recites the limitation "the risk" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the group" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the temperature" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the mixture" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 1, line 11, delete "determining" after "determined by";

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Regarding claim 6 recites the limitation "the implementation" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 7 recites the limitation "the risk" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the group" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the induction time" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the initial temperature" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 9 recites the limitation "the surface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 15, line 4, delete "(ti)" before "of spontaneous ignition";

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Webber et al. (WO 98/18001) in view of Uto et al. (U.S. 5,886,625).

Regarding claims 1 & 15, Webber discloses a process for preventing a risk of spontaneous ignition / spark plugs used for internal combustion engines and/ or explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere spontaneously igniting and or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time [figs.1-3, 5-7, col.9, lines 1-10, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Webber does not specifically mention a fuel tank optionally incorporated in a vehicle.

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Uto describes a process for preventing a risk of spontaneous ignition in which a temperature is measured in a sample holding container as a fuel tank (9) in a vehicle and in which the critical moment is determined both on the basis of a time which has elapsed and comparing the measured temperature with the critical temperature [figs.1-7, col.2, line 57 to col.4, line 60]. Therefore, it would have been obvious to one having ordinary skill in the art to employ the teaching of Uto in the system of Webber for providing / identifying accurate the timing source of the danger signals to a user as to prevent spontaneous ignition and / or explosion of the atmosphere of the fuel tank in the vehicle .

Regarding claim 2, Both Webber & Uto disclose the chemical material is a petroleum spirit as natural gas , fuel is used in the vehicle engine [col.25, lines 8-40 and abstract].

However, those skilled in the art will recognize that chemical materials can be realized in several ways may include chemical fertilizers or ammonium nitrates or other fields such as coal dust , animal , plant meals and so on.

Regarding claims 3-4, Both Webber & Uto disclose the chemical material is a petroleum spirit as natural gas , fuel is used in the vehicle engine [col.3, lines 7-15 & col.25, lines 8-40 and abstract].

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Regarding claims 5-6, Webber discloses the process for preventing a risk of spontaneous ignition / spark plugs used for internal combustion engines and/ or explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere spontaneously igniting and or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time without a human intervention [figs.1-3, 5-7, col.1, lines 24-36, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Regarding claims 7-8, Webber discloses the process for preventing a risk of spontaneous ignition / spark plugs used for internal combustion engines and/ or explosion of an explosive atmosphere stored in a confined environment / chamber (12) chosen from a group incorporated in a vehicle, in which a temperature of a mixture and any change over time are measured by a sensor (15) for detecting any risk from the atmosphere spontaneously igniting and or exploding / the invention is carried out by measuring pressure and temperatures of gas in a vary of time [figs.1-3, 5-7, col.9, lines 1-10, col.10, lines 15-38, col.14, lines 11-19, col.16, line 5-22, col.25, line 23 to col.26, line 9 and abstract].

Webber does not specifically mention a fuel tank optionally incorporated in a vehicle.

Uto describes a process for preventing a risk of spontaneous ignition in which a temperature is measured in a sample holding container as a fuel tank (9) in a vehicle and in

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which the critical moment is determined both on the basis of a time which has elapsed and comparing the measured temperature with the critical temperature [figs.1-7, col.2, line 57 to col.4, line 60]. Therefore, it would have been obvious to one having ordinary skill in the art to employ the teaching of Uto in the system of Webber for providing / identifying accurate the timing source of the danger signals to a user as to prevent spontaneous ignition and / or explosion of the atmosphere of the fuel tank in the vehicle .

Regarding claims 9-10, Both Webber & Uto disclose the atmosphere comprises the chemical material is a petroleum spirit as natural gas , fuel is used in the vehicle engine is contact with oxygen or air [col.3, lines 7-15 & col.25, lines 8-40 and abstract].

Regarding claim 11, Both Webber & Uto disclose the atmosphere comprises the chemical material is a petroleum spirit as natural gas , fuel is used in the vehicle engine is in contact with a surface of semiconfine bulk storage [col.3, lines 7-15 & col.25, lines 8-40 and abstract].

Regarding claim 12, Both Webber & Uto disclose the chemical material is a petroleum spirit as natural gas , fuel is used in the vehicle engine [col.25, lines 8-40 and abstract].

However, those skilled in the art will recognize that chemical materials can be realized in several ways may include chemical fertilizers or ammonium nitrates or other fields such as coal dust , animal , plant meals and so on.

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Regarding claim 13, Uto discloses the fuel tank in the vehicle must contain gas , fuel is used in the vehicle engine [col.1, lines 7-10 and abstract].

Regarding claim 14, Both Webber & Uto disclose the chemical material is a petroleum spirit as natural gas , fuel is used in the vehicle engine [col.25, lines 8-40 and abstract].

However, those skilled in the art will recognize that chemical materials can be realize in several ways may include a fuel tank is used in aircraft , boat or mechanical engines .

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Silber et al. (U.S. 5,159,839) Apparatus for gauging high pressure gas, in particular the supply of oxygen gas on board an aircraft.

- Hale et al. (U.S. 5,255,553) Method and apparatus for determining specific thermal conductivity parameters of gases.

- Patel (U.S. 5,904,190) Method to prevent explosion in fuel tank.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung T. Nguyen whose telephone number is (703) 308-6796. The examiner can normally be reached on Monday to Friday from 8:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass, Jeffery can be reached on (703) 305-4717. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

A handwritten signature in cursive script, appearing to read "Hung T. Nguyen".

Examiner: Hung T. Nguyen

Date: Sept. 17, 2003